NCDOT Division 3 Neighborhood Traffic Management Policy

PURPOSE: The North Carolina Department of Transportation's Neighborhood Traffic Management Policy was created in response to Session Law 2009-310, House Bill 182, giving residential neighborhoods located on NCDOT subdivision roads mechanisms to apply for the installation of devices specifically referred to as 'traffic tables or traffic calming devices." This program aims to promote safe and efficient residential streets that improve the quality of life of the community. NCDOT is committed to mitigating the impacts of speeding traffic in residential neighborhoods and utilizes the Neighborhood Traffic Management Program to achieve this goal.

Traffic Calming is the combination of measures that reduce the negative effects of motor vehicle use, alter driver behavior and improve conditions for non-motorized street users

The **Goals** of the Neighborhood Traffic Management Program include**:**

- Improve the quality of life
- Create safe and attractive streets
- Help to reduce the negative effects of motor vehicles on the environment
- Incorporate the preferences of residents
- Promote alternative modes of transportation including pedestrian, bicycle and transit use

The **Objectives** of the Neighborhood Traffic Management Program are to:

- Achieve slower speeds for motor vehicles
- Reduce collision frequency and severity
- Increase safety for non-motorized street users
- Enhance the street environment
- Enhance bicycle and pedestrian environment
- Increase access for all modes of transportation
- Reduce the need for police enforcement
- Minimize cut-through traffic

All of the following requirements shall be met in order for any traffic calming devices to be installed on a state maintained roadway:

- A traffic engineering study has been approved by the Department detailing types and locations of traffic calming devices.
- Installation and utilization of traffic tables or traffic calming devices is within one of the following areas:

    1. A subdivision with a homeowners association.
    2. A neighborhood in which the property owners have established a contractual agreement outlining responsibility for traffic calming devices installed in the neighborhood.

- The traffic tables or traffic calming devices are paid for and maintained by the subdivision homeowners association, or its successor, or pursuant to a neighborhood agreement.
- The homeowners association has the written support, for the installation of each traffic table or traffic calming device approved by the Department pursuant to this section, of at least seventy percent (70%) of the member property owners, or the neighborhood agreement is signed by at least seventy percent (70%) of the neighborhood property owners.
- The homeowners association, or neighborhood pursuant to its agreement, posts a performance bond with the Department sufficient to fund maintenance or removal of the traffic tables or calming devices. If the homeowners association, or neighborhood pursuant to its agreement, fails to maintain them, or is dissolved. The bond shall remain in place for a period of three years from the date of installation." *H182-v-5*

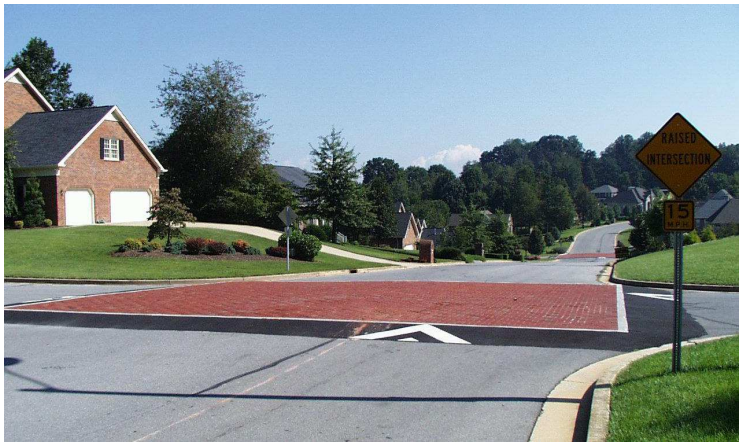
Long-term Neighborhood Traffic Management Improvements
Allowable traffic calming treatments physically limit the ability to move traffic at a high rate of speed and include chokers, mini-circles, roundabouts, chicanes, impellars and speed cushions.

Several criteria must be met in order to qualify for the installation of these long-term neighborhood traffic calming devices. The minimum criterion that must be met to qualify for these neighborhood traffic calming devices is as follows:

1. Two-way volumes must be a minimum of 600 vehicles per day and not exceed 2500 vehicles per day.
2. The 85 percentile speed of traffic must exceed the posted speed limit.

A description of each allowable device is as follows:

Raised Intersections



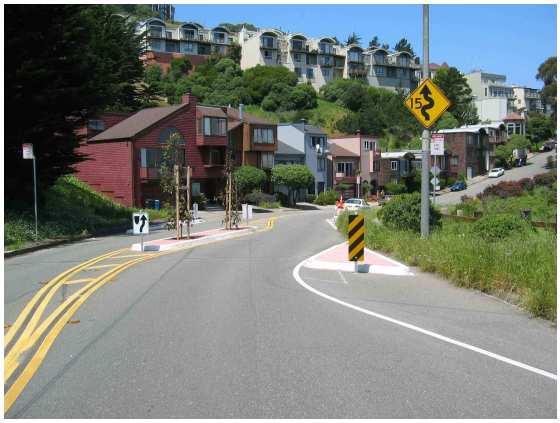
Also know as table tops consist of a raised intersection, involves the construction of the entire intersection 3" to 4" above the approaching streets. The intersection is typically constructed of a different material type or the approaches are of different material to indicate a change at the intersection. The objectives are to slow traffic and reduce the number and severity of crashes. Raised intersections are designed to accommodate all sizes of vehicles. These features address vehicle speeds and may discourage cut-through traffic.

Chokers (center chokers and bulb-outs)
Chokers are curb extensions or islands at midblock locations that narrow a street by widening the sidewalk or planting strip. If marked as crosswalks, they are also known as safe crosses. Two-lane chokers leave the street cross section with two lanes that are narrower than the normal cross section. One-lane chokers narrow the width to allow travel in only one direction at a time, operating similarly to one-lane bridges.

Mini-circles
Mini-circles require traffic to circulate counterclockwise around a center island. Unlike roundabouts, mini-circles are used on lower volume streets to allocate right-of-way between competing movements. Key design features are the offset distance (distance between projection of street curb and center island), lane width for circling the circle, the circle diameter, and height of mountable outer ring for large vehicles.

Roundabouts
Modern roundabouts require traffic to circulate counterclockwise around a center island. Roundabouts provide horizontal deflection and a clearly-defined travel path.

Chicanes
Chicanes are curb extensions that alternate from one side of the street to the other, forming s-shaped curves. Chicanes can also be created by alternating on-street parking, either diagonal or parallel, between one side of the street and the other. Each parking bay can be created either by restriping the roadway or by installing raised, landscaping islands at the ends of each parking bay.



Impellars

Impellers are used as a means of controlling vehicle speed near “T”-intersections. While intersection chokers or neck-downs slow traffic using a narrowed roadway segment, impellers use a horizontal shift to reduce vehicle speeds. Impellers are used to prevent accidents and wide right hand turns. Additionally, impellers prevent vehicles from “rounding” a turn or crossing into the path of vehicles approaching the stop controlled portion of an intersection.

Speed Cushions

Speed cushions are devices designed as several small humps installed across the width of the road with spaces between them. They resemble a split speed hump. The design forces cars to slow down, however allow wider axle of emergency vehicles such as fire trucks and ambulances to straddle the cushions without slowing down or increasing response times.

The objective is to slow traffic and reduce the number and severity of crashes. These features address vehicle speeds and may discourage cut-through traffic. Installation of speed humps on streets other than local residential streets could have potentially severe traffic safety consequences, almost certainly affect emergency services and other service delivery activities, and likely create the diversion of large amounts of through traffic onto local residential streets, which were not intended for that purpose. Therefore, speed cushions will not normally be considered for streets that are classified as collector or which are determined to provide a transportation service to the community beyond that of simply providing access to the immediate abutting residences.

1. Speed cushions will be considered only after other less intrusive traffic calming measures have been rejected as infeasible or ineffective.
2. Speed cushions will be available only on residential streets carrying fewer than 2,500 vehicles per day.
3. Street must be a minimum of 0.2 mile (1,056’) in length
4. Speed cushions will be available only on streets that have a posted speed limit of 35 mph or less and no more than one travel lane in each direction.
5. Speed cushions will not be installed on any street as to which there is, in the judgment of NCDOT, inadequate vertical and horizontal alignment and sight distances to allow for safe installation.

Speed Humps
Street pavement can be raised and the surface treated; the physical change in the roadway may slow vehicles.

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6. Speed humps will not be installed on any street that is a primary access route for emergency vehicles and would cause an unacceptable delay in response time to emergencies.